

Colloquium

Prof. Mischa Bonn

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Mainz, Germany

Monday, 6 November 2023 / 2:30 – 3:30 pm CEST

KI. HS / room 015 – Johannisallee 29 – 04103 Leipzig

Molecular structure and dynamics of (heavy) water at interfaces

Water interfaces differ from the bulk, in both their physical structure and chemical composition. In particular, the role of the termination of the hydrogen-bonded network, the role of charges at interfaces, and the effect of charges on the arrangement of counterions and water have been much debated. These charges also affect the chemical dynamics occurring at water interfaces. For instance, charge is relevant for “on-water chemistry” – chemistry at the open water surface, relevant for both technologies and chemical processes in the atmosphere.

My presentation will show how we can characterize the outermost monolayer of water at an interface, using advanced, femtosecond laser-based techniques. These surface-specific vibrational spectroscopies allow us to quantify the interfacial ion distribution, and follow chemical conversion at water surfaces and interfaces in great detail. We also reveal marked isotope effects specific to the surface of water, resulting from nuclear quantum effects.

The ^{1,2,3}H Colloquium will be streamed via Zoom:



[https://uni-leipzig.zoom.us/j/67221664393
?pwd=eFRVRm5URE9rc256WDh3ZTB3NnNlZz09](https://uni-leipzig.zoom.us/j/67221664393?pwd=eFRVRm5URE9rc256WDh3ZTB3NnNlZz09)

Meeting ID: 672 2166 4393 / Passcode: 245588